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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,903	03/18/2005	Dennis Smith	SCHULMAN 10 PCT	9049

25666 7590 07/17/2007  
THE FIRM OF HUESCHEN AND SAGE  
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KALAMAZOO, MI 49007

EXAMINER
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NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
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1711

MAIL DATE	DELIVERY MODE
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07/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/528,903

Applicant(s)

SMITH ET AL.

Examiner

Nathan M. Nutter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 03-05, 07-06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-10, 12-14, 19 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 3 4, 5, 6 and 19 recite "ethylene copolymer." Since both the second constituent, ethylene copolymer elastomer, and the third constituent, an ethylene acid copolymer, read on the term, "ethylene copolymer," the claims are deemed to be vague and confusing. It cannot be ascertained, without doubt, to which of the copolymers the recitations are in reference.

The recitation in claim 9 of "vinyl acetate level" "with maleic anhydride or hydroxyl ethyl acrylate" is vague as to meaning. It cannot be determined from a reading of the claim as to what is intended to be embraced.

Claim 8 recites the limitation "styrenic copolymers, interpolymers or elastomers" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "functionalized ethylene vinyl acetate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "MAH (unsaturated anhydride) and acrylate (GMA)" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "modified acrylate copolymers or terpolymers" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "modified acrylate copolymers or terpolymers" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites "all of which may have been modified." The statement is not clear as to whether the modification has taken place.

Claim 19, likewise, recites "may include a low molecular weight ionomer wax....representing from about 1 to 40 weight percent." The recitation is vague since the operative word "may" also includes those compositions without the constituent yet an amount for inclusion is recited. Further, the term "functionalized" is not clear as to its proper metes and bounds.

Regarding claims 21 and 22, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Further, with regard to claim 22, the recitation of "i.e." renders the claim as vague and confusing for the same reason.

Claim 23 recites the phrases "when mandated," "molded in color," and "welding capabilities," which are vague and confusing since the parameters for the inclusion of either is not shown. It cannot be ascertained what the scope of "mandated" or "capabilities" might entail.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 11-15, 18 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hausmann (US 6,288,156), newly cited.

The reference to Hausmann shows the contemplated blend at the Abstract, column 2 (line 14) to column 3 (line 7), the paragraph bridging column 3 to column 4 and column 5 (line 28) to column 6 (line 6).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 11-18 and 20-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Hausmann (US 6,288,156) as applied to claims 1-3, 6, 11-18, 20 and 23 above, and further in view of Smith et al (US 6,207,761), cited by applicants.

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The reference to Hausmann teaches the identical process with identical results as in claims 1-3, 6, 11-18 and 20-23. The reference does not show the cross-linked elastomer.

The reference to Smith et al teaches the production of a polymer blend that may include a polypropylene resin, a cross-linked ethylene containing elastomer and a thermoplastic ionomer that may be neutralized with metals, as recited herein. Note the Abstract and column 2 (lines 53-64) for the broad concept.

Employment of the cross-linked elastomer of Smith et al in the composition of Hausmann would have been obvious to a skilled practitioner for benefits derived therefrom, including stability, impact strength, etc..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nathan M. Nutter  
Primary Examiner  
Art Unit 1711

nmn

13 July 2007